AMENDMENT TO THE CLAIMS

1.(Currently Amended) A thermometer assembly comprising a housing, a bore within said housing, and a temperature sensing assembly comprising a rigid mandrel having a length with first and second sections, the first section having a resistance wire temperature sensing element helically wound onto and supported along a length thereof, wherein the first section of the mandrel and the supported resistance wire temperature sensing element is positioned in a first inner portion of the bore and surrounded by particulate material in the bore, and the second section of the mandrel is positioned in a second outer portion of the bore and surrounded by a rigid potting material in the second outer portion of the bore to form a rigid support in the housing for the ~~second~~ rigid mandrel section~~s~~, and the first rigid mandrel section being cantilevered from the second mandrel section and being cushioned by the surrounding particulate material in the first inner portion of the bore..

2.(Currently Amended) The thermometer assembly of claim 1 wherein the ~~bore has a first portion surrounding the first section of the mandrel and the bore has a~~ second portion of the bore is of larger diameter than the first portion, the second portion surrounding the second section of the mandrel and being filled with the rigid potting material.

3.(Original) The thermometer of claim 1 wherein said particulate material supporting the first section comprises a material selected from the group consisting of aluminum oxide, magnesium oxide, boron nitride and aluminum nitride.

4.(Original) The thermometer assembly of claim 1 wherein said particulate material is a heat conductive, electrically insulating

powder having particles of a sieve size of less than 325 mesh.

5.(Original) The thermometer assembly of claim 1 wherein the particulate material is a powder with a mean particle size of about 45 microns or less.

6.(Original) The thermometer assembly of claim 1 wherein said rigid potting material comprises an epoxy material.

7.(Previously Presented) The thermometer assembly of claim 1 wherein said temperature sensing element comprises a platinum resistance wire wound on an outer surface of the first section of the mandrel.

8.(Original) The thermometer assembly of claim 3 wherein the particulate material is aluminum oxide powder having a mean particle size of about 7 microns.

9.(Currently Amended) The thermometer assembly of claim ~~2~~1, wherein the bore portions are connected by a shoulder surface, and the rigid potting material forms an end cap adjacent the shoulder for retaining the particulate material in the first bore portion.

10.(Original) The thermometer assembly of claim 1 wherein the housing has a coefficient of thermal expansion substantially greater than the mandrel.

11.(Original) The thermometer assembly of claim 10 wherein the housing is made of aluminum, and the mandrel is made of a platinum-rhodium alloy material.

12.(Cancelled)

13.(Cancelled)

14.(Original) The thermometer assembly of claim 1 wherein the bore has an inner end surface and wherein the first section has an end surface spaced from the inner end surface, and separate insulating material filling a space between the inner end surface of the bore and the end surface of the first section.

15.(Currently Amended) A thermometer assembly comprising a housing, a bore within said housing, the bore having a closed end, and a temperature sensing assembly comprising a rigid material mandrel having first and second integral sections, the first section having an exterior surface surrounding the first section, a resistance temperature sensing element encircling and supported entirely on the exterior surface of the first section, the first section of the mandrel being positioned in a first portion of the bore and surrounded by particulate material to support the first section in the bore of the housing, and the second section of the mandrel being positioned in a second portion of the bore and surrounded by a rigid potting material that fills the bore to rigidly support the first section relative to the housing only.

16.(Previously Presented) The thermometer of claim 15 wherein said temperature sensor element comprises a resistance wire wound over the exterior surface of the first section of the mandrel only.

17.(Currently Amended) A thermometer assembly comprising a housing, a bore formed within said housing and having a closed end and an open end, a temperature sensing assembly in the bore comprising a support mandrel having first and second integral sections coaxially extending along a length, the first section having an outer surface surrounding the first section and

extending for a length, a resistance wire temperature sensing element ~~surrounding~~ wound around and supported entirely on the outer surface of the first section, the first section of the mandrel being positioned in the bore adjacent the closed end and surrounded by shock absorbing particulate material to support the first section in the bore, and the second section of the mandrel extending from the first section to a second portion of the bore toward the open end and surrounded and retained in the bore relative to the housing by a rigid potting material in the second portion of the bore, wherein the first section and supported resistance temperature sensing element are held as a cantilever beam by the second section and are cushioned during vibration of the thermometer by the shock absorbing particulate material.

18. (Previously Presented) The thermometer assembly of claim 17 wherein the second portion of the bore is of larger diameter than the first portion of the bore.

19. (Previously Presented) The thermometer of claim 17, wherein the particulate material comprises the only material between the first mandrel section and a surrounding inner surface of the first portion of the bore.